## 2006 Engineering Conference Breakout Sessions

## 1. Partnering with Businesses during Road Construction: Can It be Done? Yes, It Can.

Track: Public Involvement

**Primary Presenters**: Evelyn Tuddenham, Utah Department of Transportation Region Two, Public Involvement Coordinator, Randi Shover, H.W. Lochner, Public Involvement Manager, Catherine Curtis, H.W. Lochner, PRA Guide Author

**Back-up Presenters**: Angela Linford, Utah Department of Transportation Region Two, Public Involvement Coordinator (if not at international conference), Kim Clark, H.W. Lochner, Public Involvement Manager, Catherine Curtis, H.W. Lochner, PRA Guide Author

**Synopsis**: Learn about the Utah Department of Transportation's new *Partners for the Road Ahead* guide and other tools to empower business stakeholders to effectively prepare for and successfully maintain their businesses through roadway construction projects. The guide is one of the first of its kind in the United States. This session will provide attendees with simple, easy-to-apply tools and ideas to empower their business constituents to deal effectively with a variety of transportation construction projects.

**Time Required: 50 minutes** 

#### 2. What do Utahns think about UDOT?

Track: Public Involvement

**Presenters**: David L. Smith, Director of Client Services PPBH

**Synopsis**: This session will provide project managers and engineers with a real-world view of what the public thinks about UDOT. Information will be pulled from numerous phone surveys, focus groups and "man on the street" interviews conducted in the last several years for UDOT projects.

Time Required: 50 minutes

## 3. The secret to a successful PI project:

Track: Public Involvement

Presenters: Dan Jones & David L. Smith, PPBH

**Synopsis**: PI without research is like shooting an arrow into the air, and then looking for a target to catch it with. In this session, co-hosted by PPBH and Dan Jones & Associates, you'll learn how research tools such as phone surveys, web surveys, focus groups, canvassing, mailers and other surveys can improve a project at the beginning, middle, and at the end of the project. Participants will learn how pre-construction surveys create a baseline for planning, drive the PI strategy, gauge public attitudes for a project, identify concerns and issues, and discover ways to gain public support for a project. Mid-construction surveys assess the impact of a project and identify what areas of the PI plan are working well and not working well. Post-construction surveys measure the results of public involvement, the construction project and UDOT's public perception.

The session would present how various research tools impacted the strategies and outcomes of various projects, such as Express Lanes, the Mountain View Corridor, CommuterLink, and other UDOT projects.

**Time Required: 50 minutes** 

### 4. Public Information Managers

**Track**: Public Involvement **Presenters**: Myron Lee

Synopsis: This session will include a discussion of innovative public involvement strategies including the following:

- 1. Public Information Managers \* why use them, when, how, benefits of on a project
- 2. Public Involvement Incentives \* how they work, successes, real costs
- 3. Community Coordination Teams \* how they benefit business-district projects

#### 5. Cool Tools for Public Involvement

Track: Public Involvement

Presenters: Allen Ibaugh, Data Transfer Solutions

**Synopsis**: Come see some innovative technology and multimedia tools that have been developed to support Department's of Transportation in the development of their Work Programs, Community Impact Assessments, and Growth Management Initiatives. These tools combine Web, GIS, Multimedia, and 3-D components to support community awareness development and the public involvement process.

Time Required: 50 minutes

#### 6. Adaptive Management and Modeling to Mitigate for Impacts to Biological Resources

**Track**: Environmental

**Presenters**: Mike Perkins (HDR), Rick Black (HDR), Heather O'Brien (SWCA), and TBD (agency member of Legacy Nature Preserve's "Collaborative Design Team")

Synopsis: Appropriate assessment and mitigation for impacts to wetlands and wildlife are of increasing concern to resource and regulatory agencies, natural resource academicians, environmental groups, and other members of the general public. Environmental legislation driving policy to develop adequate mitigation includes the National Environmental Policy Act, the Clean Water Act, and the Endangered Species Act. In recent years, researchers have developed and refined environmental models in attempt to adequately assess impacts and develop mitigation. Adaptive management is a useful approach in combination with modeling to collaborate with agencies and other stakeholders in developing adequate mitigation and ecosystem management strategies. Adaptive management is based on the premises that natural systems are complex and inherently dynamic. Adaptive Management is a flexible, iterative approach that directs conservation management practices over time by the results of research monitoring activities. An adaptive approach has been implemented on the Legacy Nature Preserve in coordination with the Preserve's interagency "Collaborative Design Team" to develop mitigation requirements and management strategies that mitigate impacts to wetlands and wildlife from the Parkway project.

Time Required: 50 minutes

## 7. UDOT Wildlife Crossing and Fish Passage Strategies

Track: Environmental

Presenters: Tom Twedt, Biowest, Denis Stuhff, UDOT & Shane Marshall, UDOT

**Synopsis**: The long-term challenge of allowing wildlife and fish a reasonably natural and adequate passage through highway facilities continues to gain importance as UDOT strives to accomplish its mission while protecting the natural environment and working closely with the various resource management and permitting agencies. Several new efforts of the Department in this regard will be presented.

UDOT Research has funded a study to evaluate fish passage requirements throughout the State and develop solutions to problem areas and facilities. This research project will provide UDOT with a strategy for prioritizing culverts for aquatic organism or fish passage. The study will help UDOT identify locations where special culverts are needed for aquatic life passage and provide design procedures. Several Federal and State agencies have interest in this study and are participating as technical advisors.

Similarly, the UDOT Environmental Program initiated a project to develop an overall UDOT Wildlife Crossing Strategy, as a collaborative effort with the Utah Division of Wildlife Resources (DWR) under a contract with BIO-WEST, Inc. After UDOT Management obtained a commitment of support from DWR, a team of DWR specialists was identified and the team worked together to review the problem, evaluate data availability and adequacy, and jointly develop solutions. The result is a framework for addressing wildlife crossing issues early in the planning, funding, and project development phases of the UDOT process while incorporating DWR input. Additional needs and approaches to implementation were identified and developed for inclusion into the process.

#### 8. UDOT and SAFETEA-LU

**Track**: Environmental

Presenters: Shane Marshall, UDOT and Greg Punske, FHWA

Synopsis: This section will cover how UDOT and FHWA Utah Division are implementing the new provisions of SAFETEA-LU. The section will focus on defining and explaining just what Section 6002 (Efficient Environmental Review) means to UDOT. Other sections of SAFETEA-LU that will be covered are Section 6004 (CE Delegation)

and Section 6009 (De Minimis and Clarification of "prudent and feasible").

Time Required: 50 minutes

## 9. Update on the US Army Corps of Engineers Regulatory Program

Track: Environmental

Presenters: Michael Jewell, Regulatory Compliance Practice Leader, Jones & Stokes and Shawn Zinszer, Chief, Intermountain Regulatory Section, US Army Corps of Engineers

Synopsis: The session will provide information on current issues related to Section 404 of the Clean Water Act, including jurisdiction, permitting, mitigation and enforcement. Presentation topics will include a recent Supreme Court decision, proposed regulations, and new guidance and policies. The presentation will be followed by a Q&A.

Time Required: 50 minutes

#### 10. Historic Resources and Section 106 Panel Discussion

Track: Environmental

Presenters: Matthew Seddon, Deputy State Historic Preservation Officer, Kyle Keahey, Parsons Transportation

Group, Betsy Skinner, UDOT

Synopsis: This session will provide a brief overview of the Section 106 process followed by a panel discussion of topics ranging from what SHPO is looking for in cultural resource survey's to developing MOA's. The panelists come from a wide range of backgrounds and include consultants, SHPO staff, and UDOT staff.

Time Required: 50 minutes

#### 11. EMS – Environmental Management Systems

Track: Environmental **Presenters**: Jerry Chaney

**Synopsis**: Environmental mitigation commitments are often summarized in approved environmental documents. This breakout session will describe a new Environmental Management System (EMS) which will improve how mitigation commitments are communicated to design staff, incorporated into project plans and implemented in the construction and maintenance phases.

Time Required: 50 minutes

## 12. NEPA 101 for Project Managers and Non-Environmental Staff

Track: Environmental

Presenters: Elizabeth Skinner, UDOT

Synopsis: NEPA 101 provides an overview of the National Environmental Policy Act (NEPA) and FHWA's policies and procedures for applying NEPA to the project development and decision-making processes related to transportation facilities. Other environmental laws that may drive the transportation project will be briefly covered. as will the new provisions in SAFETEA-LU.

Time Required: 50 minutes

#### 13. Inspecting & Accepting New Highway Culverts

Track: Structures

Presenters: Denis Stuhff, UDOT

**Synopsis**: Things to watch for and why they are important.

#### 14. Subsurface Utility Engineering

Track: Design

Presenters: Phillip Meis, JUB Engineering, Casey Brown

**Synopsis**: One of the key objectives with the subsurface utility engineering (SUE) process is to develop designs that mitigate utility conflicts and relocates. However, placement and labeling of facilities onto design cross sections historically has been a laborious, manual activity. Recent data processing technology now allows existing utility infrastructure to be chained in 3D and brought into InRoads Civil Design for automated depiction on cross sections and profiles. This procedure will be presented along with a demonstration of how MicroStation active tags are used to query and geo-reference utility data in relational database format, including digital photographs. Anyone involved with design development and utility coordination will be interested.

**Time Required: 50 minutes** 

#### 15. 3P – Primer, Financial Models, Teaming Arrangements

Track: Design

Presenters: Mr. Grant Holland from Wilbur Smith Associates

Synopsis: Session One: 3P Primer

This session will discuss the various forms of 3P delivery methods that can be used. Discussions will include the 3P procurement process, public sector issues, and private sector issues.

Session Two: 3P Financial Models

This session will compare traditional infrastructure financings using tax-exempt municipal debt with concession financing models. The session will discuss the differences in the risk-return calculations between bondholders and equity holders and then apply those differences to a hypothetical toll road project.

Session Three: 3P Teaming Arrangements

This session will look at typical teaming arrangements for 3Ps involving both Brownfield and Greenfield projects. Emphasis will be placed on how the different project types dictate different team structures and the relative importance of different team members.

Time Required: 90 minutes

## 16. Maintenance Issues for Designers

Track: Design

**Presenters**: Maintenance

Synopsis: There are many ways to design roads and roadway features. This session will present issues to consider

when selecting design alternatives. **Time Required:** 50 minutes

## 17. DMS Training (ProjectWise)

Track: Design

**Presenters**: Bob Peterson

Synopsis: This session will present the Bentley version of a (electronic) Document Management System—

ProjectWise.

Time Required: 50 minutes

## 18. Visualization Training

Track: Design

Presenters: Paul Wheeler

Synopsis: This session will show the benefits of using visualization. How visualization can aid the design process

as well as assist with public understanding and input on projects.

## 19. Roadway Design MOI

Track: Design

Presenters: Steve Anderson, Patti Charles

Synopsis: A new Design Manual of Instruction was published recently at UDOT. This session will give a brief

overview of the MOI.

Time Required: 50 minutes

#### 20. Bentley Design Tools and New Software (ProjectWise, Microstation, Inroads)

Track: Design Presenters:

**Synopsis:** This session will present the latest updates to Bentley Tools.

Time Required: 50 minutes

#### 21. Electronic Signature in Plan Sets

Track: Design

**Presenters**: Bob Peterson

Synopsis: Electronic signatures are to become the endorsing method for UDOT projects. This session will teach

the process to signing documents electronically.

Time Required: 50 minutes

## 22. Concept Reports - Process and Importance

Track: Design

Presenters: Steve Anderson and Tony Lau

Synopsis: UDOT has revised the concept report process specifically for CE projects. The new process is aligned

with the environmental process for these projects and includes a spreadsheet for estimating purposes. This presentation will cover these changes.

Time Required: 50 minutes

## 23. Local Government MOI

Track: Design

**Presenters**: Katherine Cutler

Synopsis: A new Local Government Manual of Instruction was published recently at UDOT. This session will give

a brief overview of the MOI. **Time Required: 50 minutes** 

#### 24. GIS/GPS Network Deployment

Track: Design Presenters:

**Synopsis:** Real-Time Kinetmatic (RTK) is an emerging technology that will substantially increase the amount of data that can be collected in a survey by reducing the need to setup a base station. This session will present this

technology.

**Time Required: 50 Minutes** 

#### 25. International Avalanche Conference

Track: Maintenance

**Presenters**: Liam Fitzgerald

Synopsis: This session will describe UDOT's current Highway Avalanche Safety Program and the direction the

program will head in the future. **Time Required: 50 Minutes** 

## 26. Assessing the Safety Impacts of Access Management Techniques

Track: Traffic & Safety

Presenters: Grant Schultz, BYU, Jeff S. Lewis, EIT

Synopsis Traffic volumes and congestion across the state of Utah have continued to increase in recent years, particularly on arterial streets. This increased traffic volume has increased the emphasis on implementing access management techniques to alleviate some of the safety concerns associated with access on arterial streets. To determine the safety benefits provided by access management techniques in the state of Utah, an evaluation of the safety performance of arterials in which access management techniques have been implemented within the state was performed. Several locations where access management techniques have been implemented were selected for the safety analysis. Although crash rates were not reduced as a result of the access management techniques in every case, other safety improvements were observed. The purpose of this session is to present the results of this analysis and to discuss the safety impacts of access management techniques.

Time Required: 50 minutes

## 27. ITS Architecture for the Dixie Metropolitan Area

Track: ITS

Presenters: Dian Williams and Dave Lochtefeld

Synopsis: The Dixie Metropolitan Planning Association and UDOT have completed a Regional ITS Architecture and Deployment Plan. This session will describe the ITS services being planned for the Dixie area, the agencies' individual roles and responsibilities, and the list of planned projects.

Time Required: 50 minutes

#### 28. 511 Traveler Information Enhancements

Track: ITS

Presenters: Richard Manser and Bryan Chamberlain

Synopsis: UDOT completed a business analysis of potential enhancements to 511 such as the addition of travel time, weather forecasts, personal 511 profiles, and tourism information. The analysis addressed the requirements, impact to users, costs to UDOT and participation of other partners. The results of this report and future direction of 511 will be discussed.

**Time Required: 50 minutes** 

#### 29. ITS Traffic Adaptive Signal System

Track: ITS

Presenters: Mark Parry, Mark Taylor, consultant, possibly U of U researcher

Synopsis: UDOT recently installed a high-tech signal coordination system in the Park City area as a research project. This session will present the basic principles of the system, the project description, and initial results of six months in operation.

Time Required: 50 minutes

#### 30. ITS Strategic Plan

Track: ITS

**Presenters** Richard Manser, Dave Kinnecom

Synopsis: Under the direction of a department-wide steering committee, UDOT recently completed a strategic plan for ITS in the state. This plan deals with strategic issues such as identifying and meeting customer needs and expectations; funding strategies; managing rapid changes in technology; hiring and maintaining staff with appropriate skills, knowledge and abilities; staff outsourcing vs in-house distribution of work; roles of private sector and government in providing traveler information services; centralization vs decentralization of operations and maintenance; and improvements to existing plans and processes.

## 31. Traffic Signals

Track: Traffic

Presenters: Oanh Le, Scott Jones, Larry Montoya

Synopsis: Overview of signal design concepts, standards, and expectations. Review updated standards and

specifications. Review lessons learned and design pitfalls.

Time Required: 50 minutes

#### 32. Low Cost Safety Alternative

Track: Traffic

**Presenters**: Bob Hull

Synopsis: This presentation highlights a national pooled fund study on evaluating safety strategies/countermeasures addressed in the NCHRP Report 500 guidebooks. Many of these tried or experimental strategies to improve safety have been implemented by state DOTs but have not been formally evaluated.

Time Required: 50 minutes

## 33. Managing Traffic Demand: A European Perspective

Track: Traffic

**Presenters**: Bob Hull

Synopsis: Managing the demand for automobile use is becoming an increasingly important strategy to address the negative consequences of traffic congestion. This presentation covers a scanning study completed on programs and policies to manage travel demand in Italy, Germany, the Netherlands, Sweden, and England.

Time Required: 50 minutes

#### 34. ADA Compliance – Truncated Domes and Funding Sources

Track: Traffic

Presenters: Wes Starkenburg, Peter Jager, Larry Montoya Synopsis: 1. Public Rights of Way Guideline - Second Revision

2. Status of Ped Ramp Program

3. Process for Ped ramp evaluation

4. Standard Drawing and Specification Update

5. Lessons Learned

**Time Required: 50 minutes** 

### 35. New Development's in Financing Projects

**Track**: System Planning/Programming

**Presenters**: Max Ditlevsen

Synopsis: Overview of recent developments in state funding for transportation projects, emerging financing opportunities such as Public Private Partnerships, as well as an update on the federal / state funds exchange program.

Time Required: 50 minutes

#### 36. Web Based Photolog

Track: System Planning/Programming Presenters: Jeff Ericson, Al Warr

Synopsis: Photolog is a great way to travel State Highways, without leaving your desk. It can be used to review road geometry, check sign locations, mileposts, etc... Each image also includes GPS position and altitude. The UDOT photolog database consists of digital images taken along State highways. This session will outline the recent changes to the program, as well as how the images are used for asset management, sign management, intersection analysis, access management and litigation.

Time Required: 50 minutes (Internet Access)

## 37. Accessing System Level Pavement Condition Data using Oracle Discoverer

**Track**: System Planning/Programming **Presenters**: Bill Lawrence, Russ Scovil

**Synopsis:** UDOT's planning statistics section collects pavement condition data on the state highway system. The pavement condition data includes Falling Weight Deflectometer, International Roughness Index, Rutting, Faulting, Distress and Skid, and is collected on a system level basis. This information is stored by route, location, region, etc. from 1997 ~ 2006, and is available for use.

During the session Bill and Russ will explain the different types of data collected, its frequency, location and use, and then show how to access and query the data using an oracle database tool called Discoverer Plus.

## **Time Required: 90 minutes (Internet Access)**

#### 38. Bicycle and Pedestrian Checklists

Track: System Planning/Programming

**Presenters**: Sharon Briggs, UDOT Bicycle and Pedestrian Coordinator, Randy Jefferies, UDOT R.1 Project Design, John Miller, UDOT R.2 Project Management, Travis Jensen, Carter-Burgess Inc., Bicycle Advocacy **Synopsis:** IT'S MORE THAN JUST ABOUT CARS - Planning and designing roads that accommodate bicyclists and pedestrians.

Be one of the first to learn about the bicycle and pedestrian checklists that are now in UDOT's Roadway Design Manual of Instruction – and will be in the Design Process Manual. Project designers must complete the checklists at the concept, scoping, and final design phases of state projects to ensure that bicyclist and pedestrian transportation needs are being met. Department support for the checklists is evidenced by the approval of Policy No. 07-117, titled Routine Accommodations for Bicyclists and Pedestrians.

Presenters will provide a background on the need for the program, and discuss the implementation and benefits of the checklists from a designer, project manager, and advocacy perspective.

Time Required: 50 minutes

#### 39. I-15 Express Lane – Planning, Design and Implementation

Track: System Planning/Programming

Presenters: Tim Rose, Eric Rasband, Mike Kaczorowski, Dave Kinnecom and Bryan Chamberlain

**Synopsis:** The Express Lane on I-15 is a congestion management project to improve travel times on the corridor by allowing a limited number of single occupant vehicles to purchase the right to drive in the High Occupancy Vehicle lane. Presentation covers the following topics for the I-15 Express Lane:

- Planning, History, and Legislation
- Operational analysis
- Design
- Implementation
- Current Operation
- Preliminary findings will be presented

Time Required: 90 minutes

#### 40. Utah: Crossroads of America's Commerce

Track: Sytem Planning/Programming

Presenters: Daniel B. Kuhn, UDOT Freight Planner

**Synopsis:** This would be a modification of my existing Utah Freight Planning presentation, which would focus on the highway and rail corridors serving Utah, as well as reviewing the needs of freight transportation providers and shippers.

## 41. I-15 Study

**Track**: Sytem Planning/Programming

Presenters: Eric Rasband/UDOT, David Thompson/Fehr & Peers

**Synopsis:** The UDOT Planning Section in cooperation with Region Two and Fehr and Peers has built a VISSIM micro-simulation model to analyze alternative treatments along Interstate 15 to address the nightly congestion from Interstate 80 to 14400 South in Salt Lake County. The alternatives evaluated include the new Express Lanes in each alternative. This breakout session will include a discussion on data collection, model development, alternatives analysis, and final project recommendations.

Time Required: 50 minutes

## 42. Pavement Management - "Good Roads Cost Less"

**Track:** System Planning/Programming

Presenters: Gary Kuhl, Austin Baysinger, Doug Anderson

**Synopsis:** An overview of UDOT Pavement Management. This session will provide information on condition modeling (dTIMS CT) and where STIP projects come from, the Plan for Every Section (PFES) Database, and how different investment strategies can be evaluated to optimize the system condition.

This past year UDOT worked with Deighton Associates to evaluate the effects of different preservation and rehabilitation strategies, on the network and the users, to achieve an appropriate funding balance between expansion and preservation.

Time Required: 50 minutes

## 43. Assessing the Economic Impacts of Transportation Improvement Projects

Track: System Planning/Programming

Presenters: Grant G. Schultz, Ph.D., P.E., PTOE & Andrew Stewart, EIT

Synopsis: To maintain an efficient transportation system and provide the infrastructure necessary for economic development and growth, transportation funding must be used efficiently to provide for the needs of the system. Primarily when considering the increase of capacity on the transportation network, funding availability oftentimes places constraints on the extent of the capacity that can be increased. To allocate necessary resources to the transportation system, most government agencies establish priorities for funding consideration. There is a need to assess the economic development impacts of transportation improvement projects and to investigate evaluation criteria and tools to incorporate economic development in the transportation planning process. The purpose of this presentation is to report the results of a research project to assess the economic development impacts of transportation improvement projects and to evaluate the tools available for incorporating possible economic evaluation metrics into the transportation planning process in the state of Utah. The results of the research can be incorporated into the long-range planning process as another tool in the toolbox to evaluate economic development impacts of transportation and to provide direction and guidance on the prioritization of projects based on economic performance and analysis using economics as one of the available selection metrics.

Time Required: 50 minutes

#### 44. Funding an accelerated 10 year program of UDOT Programs

Track: Sytem Planning/Programming

**Presenters**:

**Synopsis:** The session will involve a panel of senior policy staff representatives from UDOT, UTA, WFRC and MAG who will highlight the issues involved in accelerating the transportation program. Linda Bohlinger, HNTB Corporation would moderate the panel. Over the next ten years, which highway and transit projects are feasible, and what are the most promising funding sources? How does that vision change with the results of the November 2006 ballot measure for transportation funding (potential sales tax or property tax options)? What are the opportunities and obstacles for accelerating a program of projects?

The program would highlight those projects proposed by the Utah Department of Transportation (UDOT), the Utah Transit Authority (UTA), the Wasatch Front Regional Council (WFRC), the Mountain land Association of Governments (MAG) and other planning agencies.

## 45. MEPDG Direction

Track: Materials

Presenters: Brent, Tim, Doug A., Mike D.

Synopsis: Where we are at and where we are going

Time Required: 50 minutes

#### 46. Performance Testing of HMA

Track: Materials

Presenters: Kevin VanFrank and Howard Anderson

Synopsis: Update and Direction on SPT, HWT and Binder Testing

Time Required: 50 minutes

## 47. Quality Assurance Program Updates

Track: Materials
Presenters: Bryan Lee

Synopsis: Changes and Expectations. Updates to the MAP 1011, IA, QSM, TTQP, OJT and give a better

understanding how these things can strengthen the confidence level in our testing.

Time Required: 50 minutes

## 48. Black vs. White Bidding

Track: Materials

**Presenters**: Brent Hadfield

Synopsis: UDOT's intention at the project bidding level

Time Required: 50 minutes

# 49. A systematic Approach to Cold In Place Recycling as a Rehabilitation, Joint FHWA and EPA initiative of Green Highways and National Review of Cold In-place Asphalt Recycling.

Track: Materials

**Presenters**: Stephane Charmot, SEM Materials, Jason Harrington, FHWA Asphalt pavement Engineer, Bryan Cawley, FHWA Assistant Division Administrator

**Synopsis:** Systematic Approach will be an overview of rehabilitation strategies and challenges, Programmatic guidelines for CIR selection (system level), Job site selection and CIR guidelines (project level) and analysis and critical parameters for successful CIR projects.

The Green Highways Initiative is a voluntary, collaborative, public/private effort designed to identify & promote streamlining and environmental stewardship in transportation planning, design, construction, and/or operation and maintenance through integrated partnerships, flexibility, rewards, and market-based solutions.

Cold In-place Asphalt Recycling is a method of utilizing the existing fatigued, hardened, and distressed asphalt pavement to produced a rejuvenated asphalt stabilized base. The base material is then capped with a structural wearing course of sufficient strength to withstand the governing loading.

Time Required: 90 minutes

## 50. Good Concrete Construction Practices, Fast Track Concrete Paving, Alternative Textures for Concrete Pavements

Track: Materials

Presenters: Ben Blankenship, Mike Ayers, Larry Scofield

Synopsis: Concrete pavements that are properly designed and well constructed are long-lasting, low maintenance and economical. Good performance requires uniform support, consistent thickness, adequate entrained air content, minimum strength, effective load transfer and numerous other factors. This session will focus on proven techniques for constructing concrete pavements as well as recent innovations in equipment, materials and processes. The latest research on optimizing the surface texture of concrete pavements for safety and performance will be discussed. Fast-track paving techniques will also be discussed as an alternative to conventional construction when early opening to traffic is necessary. A recent project that involved the full lane removal and replacement of up to ½ mile per night under heavy Interstate traffic will be highlighted.

#### 51. Material Supply in Utah

Track: Materials

**Presenters**: Ben Blankenship, Todd Laker, Tim Biel

**Synopsis:** Where is our cement, aggregate and binder coming from in the future.

Time Required: 50 minutes

#### **52.** AGC Roundtable

Track: Construction

**Presenters**: A panel of both UDOT and AGC representatives

**Synopsis:** A panel discussion regarding issues of mutual interest to the AGC and UDOT.

Time Required: 90 minutes

## 53. Trends and changes in construction projects and how to manage them

Track: Construction

**Presenters**: Chad Hutchinson of Navigant Consulting

**Synopsis:** Chad, based on his experience as an estimator and consultant, will discuss the problems, which can come up on construction projects which impact schedule, and budget and how to address those issues and complete the project successfully.

Time Required: 90 minutes

## 54. Provo Canyon, Legacy Parkway Updates

Track: Construction

Presenters: Jim Golden, Todd Jensen or John Thomas

Synopsis: An overview of the project's status, challenges faced to this point and how those challenges were

addressed

Time Required: 90 minutes

#### 55. The New Inspector Training Manual and Partnering

Track: Construction

**Presenters**: Mike Garcia and the RCE's

**Synopsis:** This session will discuss the evolution of UDOT's new Inspector Training Manual and intended purpose. The second part of this session will provide an update on the partnering training process as we enter the phase II training as well as discussing the input process for the online rating and the overall health of partnering on UDOT projects.

Time Required: 50 minutes

## 56. I-15 NOW Design Build Project

Track: Construction

**Presenters**: Brent DeYoung

**Synopsis:** This session will provide an overview of the \$265 million I-15 NOW Design Build project in Ogden. You will learn about the challenges faced and unique ideas used to overcome these challenges during the environmental and procurement process. The methods used provided flexibility for both the Department during the procurement process and for the Design Builder during the design process. Elements of the "Best Value" selection process used in selecting a Design Builder and the philosophy used to structure oversight management on a design build project will also be discussed.

Time Required: 50 minutes

## 57. Changes in the Project Development Business System (PDBS)

**Track**: Construction **Presenters**: Jesse Sweeten

**Synopsis:** We will review and show recent changes to PDBS including Electronic Change Orders and Additive Bidding options. We will also discuss the Contractor Module implemented in April (Request to Sublet,

Subcontractor Payments, and other information entered by the Contractor).

## 58. How to address property damage claims due to construction when contractors and their insurance companies drag their feet.

Track: Construction

**Presenters**: Warren Grames

**Synopsis:** Addressing damage done by contractors to constituent's property when the contractor delays the claims process or ignores the problem entirely. What is UDOT's expectation of providing exceptional customer service?

**Time Required: 50 minutes** 

## 59. Survey Methods and Accuracies

Track: Construction

**Presenters**: Keith Hafen of ESI and Kelly Francis of Aero-graphics

**Synopsis:** A panel discussion by three of the top survey companies in Utah, Aero-graphics, ESI, Psomas. The panel will discuss the accuracy needed at each phase of a project and what survey instruments should be used to obtain the survey data. With the explosion of using GPS and CADD it is essential that the surveyor, mapper, designer, and construction personnel understand the different methods of obtaining survey and mapping data and the accuracies associated with the data collected. The session will focus on the different survey methods, the accuracies needed for each phase of a project and how to specify the accuracies needed. New survey methods will also be discussed. The session will also provide guidance on specifics that the engineers/planners need to provide to the surveyors/mappers to make sure they are getting the type and level of accuracy they need.

**Time Required: 50 minutes** 

## 60. Asset Management – Planning, Strategy and Implementation

Track: ROW

Presenters: Jason Amadori

**Synopsis:** Public and private agencies face continuous challenges to accomplish more with less as increases in demand, regulatory requirements, infrastructure deterioration, and political and economic forces have significantly outpaced increases in capital and operating budgets. Many of these agencies are turning to Asset Management to cope with these challenges and improve business performance and effectiveness. This workshop will focus on several aspects of developing an asset management system that could help improve performance, reduce long-term costs, and maximize return on investment in infrastructure assets.

**Time Required: 50 minutes** 

## 61. PreFab Bridges - Rapid Replacement

Track: Structures

**Presenters**: Boyd Wheeler, Richard Miller

**Synopsis:** This breakout session will look at efforts to implement Prefab bridges and accelerated bridge practices in Utah. Past successes will be discussed. Current efforts will be detailed and future opportunities will be discussed.

Time Required: 50 minutes

## 62. Bridge Aesthetics

Track: Structures

**Presenters**: Robert J Shulock

Synopsis: This session will investigate concepts for implementing cost effective Structural aesthetics into projects.

**Time Required: 50 minutes** 

## 63. QC/QA Bridge Design Process

Track: Structures

**Presenters**: Boyd Wheeler, Richard Miller

**Synopsis:** This Breakout session will include a discussion of recent changes in the Bridge Design Section. It will also discuss use of contract employees and efforts to implement new standrds. The current requirements for all projects for QC/QA will be discussed.

#### 64. Research Initiatives

Track: Research

Presenters: Michael Fazio, Blaine Leonard, Ken Berg, Barry Sharp and Abdul Wakil

Synopsis: A session where the Research Division can present all the initiatives they are working on.

Time Required: 90 minutes

#### 65. Being a UDOT Leader and Project Manager

Track: Project Management

**Presenters**: Fred Doehring, Angelo Papastamos

**Synopsis:** The 2006 Tour De ePM was a smashing success thanks to Fred Doehring and the ePM band and now he is back and ready to kick-off the 2007 Tour De Fred at the UDOT Conference. Fred brings with him a new sidekick, the sensitive one, Angelo Papastamos in the Tour de Fred 2007. This Kick-off Session of the Tour de Fred promises to be an interactive, informative, fun workshop learning some of the tips & trades of succeeding as a Leader and a Project Manager at UDOT. The session is geared toward Project Managers, but anyone whom is interested in leadership and project management is welcome to attend. Come kick-off the Tour de Fred and be a part of the Peloton

The three most interactive leaders of the Peloton will win free Tour de Fred t-shirts.

Time Required: 50 minutes

#### 66. CEVP

**Track**: Project Management **Presenters**: Fred Doehring

**Synopsis:** Over the past year there has been increasing interest in CEVP (Cost Estimate Validation Process). CEVP is a risk-based analysis of a project's estimate and schedule. For this year's conference, I thought it might be useful to give a fairly detailed description of the CEVP process. I'll cover what information is needed as input, what the format of the CEVP workshop looks like, who should be involved in the workshop, what actually happens in behind the scenes, and what information will come out of the workshop. 50 minutes is not much time to cover this much information, so this will be a whirlwind tour of CEVP. Hang on!

Time Required: 50 minutes

## 67. Contract Management System/ePM

Track: Project Management

Presenters: Gaye Hettrick, Alan Loiacono, Raeleen Sanchez, Becky Stromness

**Synopsis:** An overview of the new Consultant Services Contract Management System that has been developed within ePM. The new CMS system will facilitate Project Managers in their requests for Pool and RFQ Contracts. The system will aid Project Managers in identifying potential Consultants for Pool Contracts. Project Managers will be able to monitor the progress of their contracts online through ePM. Information will be provided on Contract Requests, Contract Status, R709s, Cooperative Agreements, and Modification Requests

**Time Required: 50 minutes (Internet Access)** 

## 68. Program Development Training (STIP & Funding)

Track: Project Management

Presenters: Max Ditlevsen, Robert Pelly, Rebecka Stromness

**Synopsis:** An overview of the ePM enhancement project to add STIP and Obligation of Funds reporting capability to the ePM system. Information will be provided on submitting projects for funding consideration, selecting projects for the STIP, amending projects, and financial reporting of federal and state obligation of funds to projects.

Time Required: 90 minutes (Internet Access)

## 69. Design Exception/Design Waiver/Deviation from UDOT Standards

**Track**: Project Management **Presenters**: Barry Axelrod

**Synopsis:** This session repeats information presented in other forums by the UDOT Standards and Specifications Section. The Design Exception/Design Waiver/Deviation process has now been in effect since June 2006. The session covers basic instructions in completing the required form. Areas dealing with Design Exceptions and Design Waivers will briefly be touched on to highlight any problem areas and changes implemented with this process. The area of Deviation from UDOT Standards will be covered in detail to explain that part of the process, use of the three levels of Special Provisions, and problem areas related to the use of Supplemental Specifications and Special Provisions. If you have not attended one of our earlier sessions and are involved in project design or want a refresher this session is for you.

this session is for you.

Time Required: 50 minutes

## 70. Red Flag Analysis and Estimating

Track: Project Management

Presenters: Stan Burns, Richard Miller, Jason Henrie

Synopsis: Accurate engineer's estimates are now a performance measure for consultant and in-house designers. UDOT is currently measuring and posting on the Internet the cost estimating performance of consultants and in-house design squads based on their project's low bid. To assist designers in better anticipating project costs, UDOT has introduced the Red Flag Analysis in PDBS. This session will provide a brief overview of the Red Flag Analysis and will also cover the performance measure tabulation, cost estimating resources on the UDOT website, and a review of how the Red Flag Analysis was applied to projects currently out to bid. The session will also address the recent cost increases experienced in the heavy construction industry and will provide suggestions on preparing engineer's estimates in the current bidding environment

**Time Required: 90 minutes (Internet Access)** 

#### 71. Passing the 'Headlines' Test: Ethical Practices for Public Employees

Track: Miscellaneous

**Presenters**: Jim Phillips and Jimmy Holfeltz

**Synopsis:** Ask yourself; does it pass the newspaper test? Almost daily around here, anymore, it's hard to pick up a newspaper without finding a story sighting unethical behavior by a public employee. Too often highlighted are activities revolving around questionable procurement practices engaged in by state, city or local employees, not just elected officials.

Could you be headed for notoriety based on an up-coming newspaper article or column? Even though your job title isn't Purchasing Agent or Buyer, are you at risk?

This session will discuss how to be aware of and avoid compromising situations in dealing with Suppliers who are vying for business with or who currently provide products or services to UDOT, even if you're only on the fringe. Issues to be addressed during this Session include:

Perceived Impropriety; including Beyond the Clock

Our Responsibility to the State and Public (our Constituents/Customers)

Conflict of Interest

Issues of Influence; External as well as Internal

Supplier Relationships

Reciprocity

Gifts and Gratuities; what they really are and the solicitation of or receipt thereof.

Applicable Laws

• Signs Auditors Look For **Time Required: 90 minutes** 

#### 72. Leadership and Time Management

Track: Leadership

Presenters: Rick Murdock

Synopsis: The scenario is a DeCoster Time Management refresher course. Fourteen common time management

questions will be answered. David Allen's process for Getting Things Done will also be showcased.

**Time Required: 50 minutes** 

#### 73. Stewardship Agreement

Track: Leadership

**Presenters**: Richard Miller

**Synopsis:** The session will review the recently signed Stewardship and Oversight Agreement between FHWA, Utah Division and UDOT. The passage of SAFTEA-LU allows delegation of stewardship and oversight responsibilities beyond the limits of the two previous Highway Bills. Delegated responsibilities to UDOT will be discussed. FHWA, UTAH Division and UDOT to monitor the health of implementation of the Federal-Aid Highway Program are using performance Indicators/Measures. Bottom line is UDOT will have the lead role in compliance of tasks completed by the FHWA in previous Stewardship/Oversight Agreements.

Time Required: 50 minutes

## 74. Avoiding the Bermuda Triangle

Track: ROW

Presenters: Wayne Larsen, Ray Bennett and Eric Lyon.

**Synopsis:** This phenomenon is known to adversely affect a project's advertising date. The trepidation of acquiring right of way could triangulate a project's budget, scope and schedule. Come witness examples of this phenomenon, learn how to navigate around its gravitational influence, clear your project's right of way on time, on budget, and without limitations.

Time Required: 50 minutes

#### 75. I-15 Hot Lanes Project

Track: Planning/Programming

Presenters: Caroline Brabrook, Jerry Mugg, Dan Baker, Greg LeFrois, Jack Finn

**Synopsis:** This presentation would highlight the past, present and future of the I-15 HOT Lanes Project. This may be presented by both a member of the UDOT HOT Lanes Steering Committee and an HNTB toll expert or by HNTB alone. The presentation will provide an overview of the toll

feasibility study, the pre-launch, the initial sticker program (launching in September) and the road to full electronic tolling.

The Feasibility Study: This section focuses on the initial efforts required to move this project forward, HOV studies, development of the system concepts, corridor analysis, and financial analysis.

Pre-Launch Work: This section focuses required corridor work in preparation for the HOT lanes (e.g., striping, signing), as well as the legislative and enforcement coordination required.

Sticker Program: This section focuses on the work required to launch the initial sticker program including; the website, back office support, billing, stickers, business rules, etc.

Road to Full Electronic Tolling: This section focuses on the future and what full electronic tolling will look like on the road and in the back-office.

Time Required: 90 minutes

#### 76. University Students Session

Track: Miscellaneous
Presenters: Rick Murdock

**Synopsis:** One Room is reserved for Tuesday Morning 8:00am for this meeting/orientation.

#### 77. New ROW training for Local Government Agencies and Udot Project Managers

Track: Miscellaneous

Presenters: Karen Stein, Lamar Mabey

**Synopsis:** This session would provide a preview of newly developed training materials (including a sample lesson from the new FHWA training materials.) ROW plans to roll out training in 2007 for local agencies and PM's to be coordinated thru the regions and MPO's. Our goal, I in keeping with FHWA recommendations is to certify local agencies so they can clear right of way using local agency staff. This training program will be the first step in establishing that program.

Time Required: 50 minutes (Internet Access)

#### 78. Asset Management for UDOT's real property/surplus property

**Track**: Miscellaneous **Presenters**: Craig Fox

Synopsis: from a ROW perspective. How we track our properties (Leased, excess, water rights) in row epm

Time Required: 50 minutes (Internet Access)

#### 79. SMS - Safety Management System

**Track**: Traffic and Safety **Presenters**: Rob Clayton

Synopsis: A live training session to demonstrate the new CARS (crash record database) program that will have

significantly different and enhanced capabilities to users.

**Time Required: 50 minutes (Internet Access)** 

## 80. The Extraordinary Leader - Moving Individuals & Teams from Good to Great

Track: Miscellaneous

**Presenters**: Sydne Jacques, Jacques & Associates

**Synopsis:** In today's rapidly changing, highly competitive environment, the organizations that excel will be those people are most competent, passionate, and focused on delivering results.

In this workshop you will gain a new level of understanding that will help not only benefit the development of your organization, but your personal development as well.

We will provide a proven framework for helping each individual make a profound difference to the organization's results, and to his or her own performance and development.

You will be introduced to ideas and proven research-based principles of leadership performance that will help you find ways to break the mediocrity barrier and achieve extraordinary performance.

Come join us for home made cookies and an experience that will move you from Good to Great!